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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/690,694	10/16/2000	YUJI TAKAMIZAWA	P5285A	3266

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EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/690,694

Applicant(s)

TAKAMIZAWA ET AL.

Examiner

Madeleine AV Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-27 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 25, 2004 has been entered.

Applicant amends claim 4, adds new claims 24-27.

Response to Arguments

2. Applicant remarks that Fukano teaches that its receive buffer may be cleared when returning back on line (resume operation) after having been off-line which is different to the claimed invention.

First, it is noted that the off-line state in the claims is defined as “a state in which received data is not printed” and the on-line state as “a state in which received data is printed”. Both of the claimed states are different from the off-line state and the on-line state in Fukano. Fukano teaches a resume operation to be performed after an off-line state. The resume operation thus is performed when the printing apparatus goes on-line again following the off-line state. For the resume operation, there are 4 different cases determined by parameter m. In case the resume operation fails (m=2), the information in the receive buffer 104 and the print buffer 107 are cleared. That is considered as the first state (off-line state) in which received data is not

printed. The second state (on-line state) is the cases when the resume operation is successful (m=1, 3 or 4) and the received data is printed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukano (US Patent No. 6,491,453).

Concerning claims 1, 21, Fukano discloses a printer (101, Fig.1) adapted to be connected to a host computer (102) and to receive data including control commands from the host computer comprising a receive buffer (104) for temporarily storing received data; a data interpreter (105) for interpreting the data in the receive buffer; control means (105) responsive to the data interpreter for controlling the printer; state detection means (108) for detecting whether the printer is in a first state in which received data is not printed (m=2) or in a second state in which received data is printed (m=1, 3 or 4); clearing means (105) for clearing the received buffer, characterized in that the clearing means is responsive to the state detection means for clearing the receive buffer in response to the printer entering the first state.

Fukano does not directly define that the first state is the state in which received data is not printed or the second state is the state in which received data is printed. However, Fukano teaches that when the resume operation after an off-line state fails, the printer request the host to

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resent the print data (col. 4, lines 29-34). In other words, Fukano teaches a re-sending section (102c) in the host computer which resends print data or commands when the receiver (102b) receives notification from the printing apparatus that the resume operation could not be successfully completed (col. 4, lines 56-60). Before the host resend the print data, the printer clears the information in the receive buffer and the print buffer since these information cannot be printed. It would have been obvious to one skilled in the art at the time the invention was made to consider the state when resume operation fails (parameter $m=2$) equivalent to the first state in which receive data is not printed since Fukano teaches the step of clearing the buffers in response to the state when the printer fails the resume operation.

Concerning claims 2-7, 22-23, Fukano further teaches a setting means (108a) for setting a data handling mode that determines how data are handled when the printer is in the first state (col. 6, lines 16-58), reading means for reading the data handling mode (resume operation type) in response to the printer entering the first state ($m=2$), wherein the clearing means is adapted to clear the receive buffer only when data handling mode is set to allow clearing of the receive buffer (claims 2, 22), (col. 6, lines 8, lines 25-38); the setting means is adapted to set the data handling mode in response to a specific control command from the host computer (claim 3), (col. 5, line 64 – col. 6, line 15); a data discarding means for discarding data received from the host computer while the printer is in the first state (col. 8, lines 30-31) or when the data handling mode is set to allow discarding the data received from the host computer (claims 4, 5, 22), (col. 8, lines 8-45); a print buffer (107) for storing expanded print data wherein the clearing means is adapted to clear both the receive buffer 104 and the print buffer 107 (claim 6), (col. 8, lines 30-31); the first state is an off-line state (when the resume operation fails) in which the data

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interpreter does not interpret received data, and the second state is an on-line state (when the resume operation is successful after an off-line state), (claim 7).

Claims 8-18 are method claims of apparatus claims 1-7. Claims 8-18 are rejected for the same rationales set forth in claims 1-7.

Concerning claim 19, Fukano discloses a host computer (102, Fig.1) that sends data including control commands to a printer (101) comprising a data transmitter (102a) that sends print data; a notification detector (102b) that awaits and detects a notification received from the notification means (105a) of the printer (101); a state detector (102b) that awaits and detects an on-line state or off-line state notification from the printer; a print data resending unit (102c) that resends print data to the printer after receiving an on-line notification from the printer if the state detector detected an off-line notification from the printer (col. 4, lines 28-60; col. 9, lines 9-25; col. 11, lines 38-42).

Fukano does not directly teach that the notification detector detects a printing completed notification received from the printer in response to a printing completed command. However, it was commonly known in the art that when the printer successfully complete the print job from the host computer, it sends a notification or a confirmation to the host computer to let it know that the printing job is completed. Fukano teaches that the printer has a notification section (105a) which informs the host device of the result of a printing job or the result of a resume operation (col. 4, lines 28-34) and the host computer has a receiver (102b) which receives from the printing apparatus notification concerning the result of a printing job or the result of a resume operation (col. 4, lines 54-56), (col. 9, lines 9-25). Fukano further teaches that the resending unit 102c in the host computer resends print data to the printer 101 after receiving an on-line

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notification from the printer if the state detector 102b detected an off-line notification from the printer (col. 9, lines 21-25). It would have been obvious to one skilled in the art at the time the invention was made to consider that the notification detector 102b at the host computer 102 in Fukano can receive and detect a printing completed command from the notification means 105a in the printer 101 since it is very clear that the off-line notification is a printing incomplete notification and thus, a notification of a complete printing is obviously included if the printing job is successfully executed while there is no interruption during the printing as a matter of well known in the art.

Claim 20 is method claim of apparatus claim 19. Claim 20 is rejected for the same rationales set forth in claim 19.

Concerning claims 24-25, Fukano discloses a printer adapted to be connected to a host computer as discussed in claim 1 above. Fukano further teaches that the received data from the host computer is discarded if the printer is in the first state (off-line state) and a clearing unit clears the information in the receive buffer 104 and wherein if the state detector detects a state transition (resume operation) into the second state (on-line state), the clearing unit clears the receive buffer in response to this transition (S406, Fig.4).

Claims 26-27 are method claims of apparatus claims 24-25. Claims 26-27 are rejected for the same rationales set forth in claims 24-25.

Conclusion

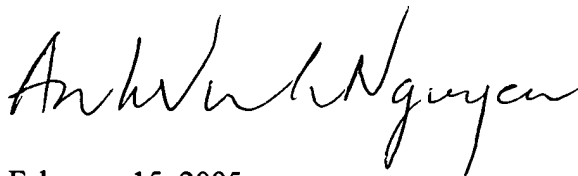
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- a. Minowa et al (US Patent No. 6,768,557) discloses a printing system connected to a host computer with data storage medium for storing the control method.
 - b. Kurosawa et al (US Patent No. 6,519,057) teaches an image recording apparatus with mode switching to facsimile mode or printer mode.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

February 15, 2005